

**Chehalis River Basin Flood Authority
Special Meeting
Cosmopolis Volunteer Fire Department
111 D Street – Cosmopolis**

**December 15, 2011 – 9:00 a.m.
Meeting Notes**

Board Members Present: Dan Thompson, City of Oakville; Edna Fund, City of Centralia; Ron Averill, Lewis County; Jim Cook, City of Aberdeen; Julie Balmelli-Powe, City of Chehalis; Vickie Raines, City of Montesano; J Vander Stoep, Town of Pe Ell; Mark Swartout, Town of Bucoda; Karen Valenzuela, Thurston County; Terry Willis, Grays Harbor County

Consultants/Facilitator Present: Greg Hueckel, SBGH Partners; Lara Fowler, GTH; Larry Karpack, WSE Consultants

Others Present: Please see sign in sheet

Handouts/Materials Used:

- Agenda
- Summary memo on early warning lease issues
- Letter from BOCC to Weyerhaeuser
- Weyerhaeuser permit draft
- Draft DNR lease
- Lewis County review of DNR lease

1. Call to Order

Chairman Raines called the meeting to order at 9:09 a.m. She thanked everyone for attending and stated a local restaurant had donated the fruit, bagels and coffee. She explained that following the morning session there would be a tour of the Mill Creek Dam, the Cosmopolis Tide Gates, and a wetland area near the Wishkah River.

2. Introductions

Self-introductions were made by all attending.

3. Project Updates

b. Early Warning System

Ms. Fowler stated the Early Warning System would be addressed first since Mr. Karpack had not yet arrived.

1. Feedback on November flood events

Ms. Fowler stated the Early Warning System is up and running and during the high water events just prior to Thanksgiving, Ms. Fowler and Dr. Curtis were troubleshooting the system. The reports varied as to how effective the system was, from very good to not very good. There was no access for some folks.

Commissioner Averill stated that the predictions of disaster far exceeded what actually happened. The maps showed inundation that never happened. It appeared that the maps were using 2007 numbers and by using those for the model there was a prediction of a 2' rise over what actually occurred. He stated that some staking could have been done to show what actually happened and that will be done

next time to get the model closer to reality. He was concerned that by telling people there will be tremendous flooding and for it not to occur will result in people not paying attention to the predictions.

Ms. Fowler stated DOT asked if the data from the Skookumchuck was looped into the National Weather Service because that affects DOT's decision to close the freeway. That link is being worked on. She continued to say that automatic notices were sent about when certain levels were reached. She was curious to know if that worked. She asked if there are standard things the public would like to receive notices on and proactively set those up and not wait until the event is occurring.

Commissioner Averill thought that was overkill. He stated the Emergency Management Service does this. He also stated that DOT has put two cameras on the airport levee. They allow DOT to get a jump on water levels at the freeway levee. He believes the cameras will be linked to the DOT webcam.

Commissioner Willis thought text messages would be helpful but she didn't want overkill, either. She thought parameters could be set as to when those go out, such as when the water gets to a certain level and when it is expected to exceed at a certain time. Texting allows people in the field to get information when they need it.

Ms. Powe stated she had some trouble getting on to the Early Warning System before and during the event but later it worked fine.

Mr. Thompson stated it worked great.

Mr. Johnson stated he did not have a problem getting in but asked if the log-in is because it is being beta tested. The public does not know how to log in. Ms. Fowler stated that question had been raised before. She understands that the Contrail system is an off-the-shelf system and that a custom home page costs much more. The log-in and password information is on the Flood Authority web page and could be hyperlinked. A no password page costs about \$1500 and she wondered if it was worth the money.

Mr. Johnson stated the Lewis County Public Works director went out during the event and looked at the river inundation and it was a foot off. The river never got close to overtopping the banks at I-5. The predicted flooding did not happen and that could cause problems as Commissioner Averill stated.

Ms. Fowler stated WEST is working on upgrading the hydraulic modeling with the Corps of Engineers. Part of the upgrade is to re-do some of the maps. She will make sure that Dr. Curtis hears these comments.

Mr. Johnson suggested the next time there is an event to put some markers in and do a GPS to verify the event based on what the predictions were throughout the basin. If that can be done a couple of times, it would be cheaper than hiring a firm to do it. Had we been prepared we could have put up a lot of flags.

Mr. Karpack stated he did not know how the Early Warning System produced maps. He does have background on how the hydraulic modeling was done in the FEMA study. In a FEMA context, they are mostly concerned about 100-year floods. Less effort goes into the modeling for small floods – the

smallest is a 10-year flood. He stated if data is collected from smaller events the calibration can be extended down. Having more data makes it easy to tweak the calibration of the model.

Commissioner Averill stated that the maps predicted enough flooding that Centralia made a declaration of potential damage and the County started to activate its Emergency Operations Center and that was based on the reporting. If that's what happens and it's not close to flooding, there is a "chicken little" attitude.

2. Status of Additional Gages

Ms. Fowler stated she had sent out a memo regarding the additional gages on Weyerhaeuser land and DNR land. There are questions about liability and insurance. Lewis County is the fiscal agent for the Flood Authority and they are being asked to extend their insurance into Thurston County where their insurance does not go. The memo is informational at this point and Mr. Phillips is working on this issue. The question is how to get adequate liability coverage, how to get the right permission in the right places and since it is a state funded system that the Flood Authority put in, who is ultimately responsible.

3. Discuss budget, next steps

Ms. Fowler stated WEST's contract runs through June, 2012 and they are within budget because the gages have not been installed. Within their contract they were hoping to shift funds from one category to another. We don't want them to be out of budget in a certain category. They are hoping for flexibility within their budget range. This will be discussed at the afternoon meeting.

a. H & H modeling

1. Corps Project – Commissioner Willis

Commissioner Willis stated the hydraulic report has been given to Commerce and Ms. Hempleman of DOE was to discuss it after the project committee meeting. Mr. Karpack and the Tribe will also look at it.

Mr. Karpack stated he is looking at the framework for the hydraulic analysis which will ultimately be the single report for the WEST study for the Corps.

Mr. Karpack stated all of the survey data has been collected for the lower reach from the Lewis County/Thurston County line downstream. It was done in three pieces: from Montesano to the mouth of the river; from Montesano to Porter; and from Porter to Grand Mound. All the field work has been done. Regarding the modeling, a model has been constructed from Montesano downstream. Some calibrations have been run but they need to be tied into the model done by WEST. WEST sent geometry for the model between Montesano and Porter and with the other survey they will have a model set up for Porter to Grand Mound that should be completed by the end of this week. After calibration there will be an application of that model. Everything is generally on schedule and going well.

Mr. Swartout asked if the lower part of the Black River will be done. Mr. Karpack stated the new survey data will be part of the Chehalis model because it is linked to the Chehalis flooding, and that data has been collected. Trans Alta has data on the Skookumchuck that is being sent to him. The Corps did some modeling in early 2000 but it was never referenced to geography, or tied to the topography. Mr. Karpack will look at the modeling done by Trans Alta to see if it is better data or not and will come back to the Flood Authority to see what should be done on the Skookumchuck.

Commissioner Averill asked if the Trans Alta modeling was done just on the Skookumchuck. He stated about 40% of the floodwaters come from tributaries below the dam. Mr. Karpack stated he did not know. The purpose of their work was a downstream failure assessment and he guessed they focused on only the big flow. He does not know if they collected new channel cross section surveys.

Mr. Swartout provided information from Mayor Carr of Bucoda. The section from the railroad bridge to Bucoda could be another potential project to put on the list. Mr. Karpack asked if he could get more information on that bridge. The hydrology done by WEST includes inflows so those will be captured in the hydrology done by the Corps. If the information is not any better, then Mr. Karpack would ask the Flood Authority if he should do another survey on that bridge with and without the trestle.

Mr. Karpack stated WEST had previously built a model on the lower Satsop and that information will be built into the model. Commissioner Willis asked if the data is still good. Mr. Karpack stated he has not compared the old channel cross sections to the new cross sections in the Chehalis. That comparison will give him an idea of what is happening on the Satsop.

Commissioner Willis stated a project downstream on Highway 12 had been targeted but failed due to lack of funding. Since the Corps has done modeling there before it may be valuable to go back and look at it again.

Mr. Karpack stated he has been in contact with the Chehalis Tribe and they are preparing to send modeling information including the Black River to him.

c. Fisheries Impact Study

Mr. Hueckel stated that on November 17 the Flood Authority was briefed on the results of the fisheries impact study. Delivered at that time was an executive summary to that report which was sent to reviewers at the state and federal levels, the Tribe and the PUD and others. The review period was set for January 2 but since that is a state and federal holiday, it was extended to January 3.

On November 21 Mr. Hueckel and Mr. Schlenger met with the Quinault Nation and the NW Indian Fish Commission. It was a good presentation by Mr. Schlenger and there were many good questions. A summary report went out on November 30. On December 2 they met with the State and talked about the report and the review period with Mr. Donahue, Mr. Kramer, DNR, WDFW and others. On the 12th there was an all-day meeting with the scientists so they could ask questions of Anchor. The afternoon session questions will be answered by Mr. Schlenger and will go back to the participants.

Ms. Powe stated it went pretty much how it was expected to go. There were some tables and data for review; the questions were very constructive.

Commissioner Averill asked if there was anything said during the meeting that would dictate that Mr. Schlenger will have to go back and change the model. Mr. Hueckel stated there are a couple of areas where Mr. Schlenger will work with particular scientists; he admitted that more work is necessary in some places. Regarding the wrong time, wrong fish comments, three species were selected for the indicator. Information can be extrapolated from the fish study and the habitat changes for different species. There is enough science that it will be used for further extrapolation. Mr. Hueckel stated he would make sure that all the comments from Dr. Beecher, Bob (?) and others who review the report get funneled through Travis Nelson and Mr. Nelson will make sure the comments are valid.

Ms. Powe noted that there were three technical meetings held through the summer with the same people attending. She stated they did not bring up any of those questions at those meetings.

Mr. Hueckel stated the Chehalis Tribe has contacted him for a review and they are working on dates for that review. He is willing to give them a briefing and their review period will extend past January 3.

Commissioner Averill asked who would be involved with that and Ms. Fowler stated it would be the Tribe's business council. They will try to figure out how to get to the end stage of this report and give the Tribe ample time to review and discuss it. Ms. Fowler also stated that there are extra copies of the report on CDs and the Power Points if anyone would like to have them.

Mr. Kay, Lewis County PUD, stated tables and graphs are easier to understand than the verbiage if the person reading the report is not a scientist.

Mr. Hueckel stated questions and comments should go to Mr. Schlenger by January 3 with cc's going to Mr. Hueckel. Some allowances will be given to WDFW. Mr. Schlenger will answer the questions and Mr. Hueckel will help format the report to cut down on the volume.

Mr. Swartout asked what the model is being used for. Mr. Hueckel stated the model is to give an indication of what the short and long-term effects are for a retention facility. Mr. Swartout asked if it will be used by a permitting agency, or will it be used by the Flood Authority to make decisions about projects.

Mr. Hueckel stated when the report comes back you will now have a piece of information that you did not have. When you go through the report you will assume it is good science and that this science is a good indication of a large scale project. Now it is up to the Flood Authority to decide if it wants to put it on and maintain a list of priorities for flood relief projects. If it does, it may want to look at some compensatory projects to go along with it. There are some impacts and you want to give the regulators, the public and funding agencies a package to look at and bundle it based on what comes out of the fish report. Since there will be some impacts, you can use this as a mitigative opportunity. The Flood Authority must provide recommendations for future decision-makers and this would be a critical piece for discussion points.

Ms. Fowler stated it is a point of information for the Flood Authority to look to where to go next: hold on to the model or decide that water retention is a project, or ask for additional studies, or pass it on to the regulators.

Mr. Swartout stated his experience in the past with models is that they are thought to be the magic bullet that covers everything. Over time you need to know into what context you put the modeling. It will either answer all your questions or you use it to help make decisions. From one end of the continuum to the other you cherry-pick information out of the study that supports your particular viewpoint. He asked if it will be a decision-making tool – are we asking it to make the decisions for us.

Mr. Hueckel stated it is telling you the effects coming out of the model, or the trends. The regulators will get an application on which to make a decision. It is the public process to go forward to get funding, determine pre-scoping, the EIS, the scale of the criteria for the NEPA/SEPA processes. You have to look

at all of these. The report will give you more information to make the decision whether or not you want to tackle that.

Commissioner Averill stated the contract with Anchor tells what the modeling is for. The contract and scope of work is to determine what the impact to fish will be with a diversion dam or a multi-use dam. That is the function of the study. There are critics who say we are not putting in enough money to get the answer; he thinks we are getting a lot more answers than he originally expected. If we have water retention, what is the impact on fish? Enhancement is the next step. If a dam has an impact on fish, can it can be mitigated, and that is the purpose of the enhancement study.

Mr. Swartout stated his question is: once the product is done, what is its use?

Mr. Vander Stoep stated the legislature wants this one piece of information by the end of the fiscal year: a study to show impact on fish and water quality. Water quality, high water temperatures, low flows, etc., has been an issue on which the State has spent millions to mitigate and now there is a study being reviewed by multiple scientists to come up with an analysis for future decisions.

d. Fish Enhancement Study

Mr. Hueckel stated there had been one workshop on enhancement that started the scoping work for Anchor. They went to local scientists to put particular projects on maps but there was not a lot of input. What they are getting are local projects such as salmon recovery projects, conservation district projects and a culvert data base that is being developed by WDFW and DOT. There is currently a lot of work between these two agencies on culverts that affect fish. There is a lot of work in the headwaters to replace culverts in forest lands, but he is talking downstream and locally and state-owned culverts. The enhancement projects have been included into the master project list (270 total projects) and some of those culvert projects can be regarded as increasing conveyance capacity that could also relieve some flooding with multiple benefits, such as re-connecting oxbows, increasing side channel rearing. The Project Sub-Committee is working on that.

Regarding enhancement, Anchor is just getting started and that is due June 30 and it will include identifying opportunities for enhancement and then the scope of work. If you fix a culvert, what is it going to do? If the culvert is blocking three more downstream, fixing that one culvert won't do anything. You have to fix the one downstream. The evaluation of projects includes this as well as what the long-term functional increase of benefit is for a particular project.

Ms. Fowler stated the short summary is they are working on scoping, gathering information and figuring out where to go next.

Commissioner Averill stated another aspect of that is the culvert projects are not only DOT projects but County Public Works projects. Logically, if you are going to do a culvert project, you would start downstream and work up but if a culvert breaks upstream it will be fixed first and there is an obligation to fix it to the new standards.

Ms. Fowler stated the Anchor contract overall for fisheries impact and the enhancement study originally had been through June of this year and then the capital budget included an extension for the final pieces of the report to come in at the end of this year. The Flood Authority needs to review that. For the enhancement study in the OFM contract with the Flood Authority the deliverables is through June 2012.

The goal is that all of these pieces feed into the OFM report. This contract is about to end and the request is to ask Anchor to work through and extend the contract. This will be a discussion item at the afternoon meeting. Also, Anchor is past budget on the fisheries impact because they were looking at three fish species rather than the original two and they are attending more meetings. Extending the time period into the new year raises some budgetary issues. This is a big contract and we want to make sure they are fully engaged to deal with all the comments.

Commissioner Averill stated there is not a whole lot of money left out there unless we get some other source and move money around.

4. Coordination with OFM Report/Ruckelshaus Center Process

Ms. Fowler stated that Mr. Kramer is on board and is working with state agencies for the six items that the legislature requires OFM to report on next year. Mr. Kramer is looking for existing information; he will not create new information but he is working with DOT to find out what information is out there and what is still needed. How do you deal with certain categories of projects? The State Department of Conservation is working on some aspects of it. Mr. Kramer will talk to the Flood Authority in January and he has requested to speak to the Flood Authority board members. Some members stated he has contacted them already.

5. Public Comment

There was none.

6. Wrap

Mr. Darren Raines, Cosmopolis Public Works, and Larry Bledsoe, Aberdeen Public Works gave overviews of what the tour would include.

Mr. Raines stated Mill Creek dam was breeched in 2008 and then winds and rain loosened the soil and tree roots were weakened. The trees slid down and eroded the landfill portion of the dam, got into the concrete portion and broke it away. The area had been used for flood control and recreation: a year-round fishing spot for kids; the main use was for flood control. The City tried to lower the dam before a major storm and release the water after the storm occurred. That opportunity is gone now. With the dike and the dam working together the flooding could be limited. There is a tidal influence there, also. If there is water coming down the Chehalis the tide gates are not allowed to open and the water backs up into Mill Creek and Aberdeen. Right now Cosmopolis is looking at funding opportunities to either replace or remove the dam. It is thought that the best option is removing the dam and looking at fish enhancement opportunities. The City is also looking at culverts for flood control. That project is in the beginning stages.

Mr. Bledsoe stated the south side dike which encompasses a portion of Cosmopolis was completed about 15 years ago which was at least 40 years after the first Corps study. Many older homes had been raised before the diking as there were multiple flood events every year. The current dike is poorly designed and there are still residents who get flooded, not necessarily from the river, but from impounded water.

Commissioner Willis spoke about a section of Wishkah Road where water will back up and run over the road even during high tide and inundates homes in that area. There are three issues there: a wetland area, the road goes under water creating an issue for the Fire Department and emergency vehicles, and

because it floods in two different spots it creates an island cutting those people off. In the last flood (not a major one) there were homes that got water in them because the tide was high. This has been on the county's radar for several years. It is not mainly tidal influenced but if the river comes up and there is a high tide and wind there is a different type of flood issue. Even on a high tide there are issues.

Mr. Cook stated another council member took photographs of that area during high tide and he will have those available later in the day.

The meeting adjourned at 10:35.